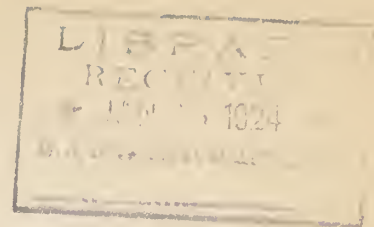


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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY
Washington, D. C.

FOREST ENTOMOLOGY BRIEF 49.

December 5, 1923.

BRIEF INFORMATION ON INSECT DAMAGE TO UNSEASONED HANDLE AND
WAGON STOCK IN THE ROUGH AND SUGGESTIONS RELATING
TO ITS PREVENTION.Character and Extent of Injury.

The principal damage to green ash, oak, and hickory logs and to stock in the rough, used in the manufacture of handles, mallets, mauls, and wagons, is due primarily to the destruction caused by the young forms of grubs of certain wood-boring insects. The presence of bark is absolutely necessary for successful infestation by most of the grubs causing this damage, because the eggs and young stages must occupy it before the latter can enter the wood. It usually takes nearly one month, after the eggs have been deposited in the bark by the beetles, for the grubs to develop sufficiently to enter the sapwood, where large holes are made. Green logs and stock in the rough, when exposed to insect attack, either in the woods or in the mill yard, during the spring and summer months, may be severely damaged within a short time and reduced in value from 40 to 50 per cent or more.

Remedy.

Damage to this class of materials can be checked, where practicable, by observing the following procedure:

(1) By turning the infested wood on a lathe. (If it has been exposed to attack only one month the grubs will be still under the bark or just entering the outer sapwood.)

(2) By saturating all parts of the wood thoroughly with liquid orthodichlorobenzene.

(3) By submerging the material in water, in cases where the grubs are still under the bark or in the outer sapwood. If beyond the latter place this method should not be used.

Prevention.

The most practical way of protecting green logs and stock in the rough is to make such slight changes in the methods of management in the woods, in the storage of logs at the mill or in the factory yard, as are necessary to produce unfavorable conditions for these insects. Such procedure is necessary since the insects are active from April to October in the region north of the Gulf States and from February 15 to November in the latter. In the vicinity of Washington, D. C., the beetles are most active from April to June 30.



The following procedure should be followed:

(1) Concentrate the cutting of wood, as far as possible, during the fall and winter months while the insects are not active, and work it up before the first flight of the beetles in the spring.

(2) When the trade requires bark on the wood, cut it in the fall about the time the leaves begin to turn. If cut at this season of the year, the bark will stick tight and the wood will be less favorable for attack by most insects.

(3) Cut as little wood as possible during the spring and summer months while the insects are active.

(4) If necessary to cut the wood during the period of insect activity, remove it from the woods as fast as cut and utilize at once, or place under cover in an insect-proof shed or submerge in water.

(5) If not possible to do this (paragraph 4) spray the logs with a solution of coal-tar creosote, 1 part, to kerosene, 8 parts. (Strain creosote through burlap to avoid staining the wood.)

(6) When not possible to remove logs from the woods at once and the insects are active, the wood may be protected from injury by peeling off the bark.

(7) Logs left in the woods should be removed from low, damp places to high, dry ones, to prevent attack by another class of insects. Care should be taken not to pile them close together, especially during warm, damp weather, as severe injury will result in a few days.

(8) Where practicable, submerge logs in water until ready for use.

(9) Avoid leaving slabs and culls about the factory yard. They will serve as breeding places for insects. When accumulated during the winter, burn before spring.

R. A. St. George,
Assistant Entomologist.

Approved:

F. C. Craighead,

Entomologist in Charge of Forest Insect Investigations.

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